United Nations TD/B/C.II/24

United Nations Conference on Trade and Development

Distr.: General
17 February 2014

Original: English

Trade and Development Board
Investment, Enterprise and Development Commission
Sixth session
Geneva, 28 April–2 May 2014
Item 4 of the provisional agenda

Entrepreneurship and productive capacity-building: Creating jobs through enterprise development

Note by the UNCTAD secretariat

Executive summary

Addressing the development needs and rights of young people and empowering them is a global issue and is at the forefront of the work of the United Nations. Responding to the Doha Mandate (sub-theme 4, and paragraphs 8, 31(e) and 56(d)), this note discusses youth entrepreneurship policy challenges, building on the UNCTAD Entrepreneurship Policy Framework (EPF). Encouraging the development of entrepreneurial talents among the young population may effectively contribute – if paralleled by adequate policies addressing the constraints of the labour market – to achieve employment generation and inclusive growth.

To address these issues, the note recalls the importance of entrepreneurship for employment generation and of addressing youth entrepreneurship challenges from a policy perspective. Section I illustrates the most recent youth unemployment data and trends and provides evidence of the potential positive impact of youth entrepreneurship in fostering economic growth, innovation and job creation. Section II highlights the importance of enhancing the entrepreneurship ecosystem for youth from a holistic perspective and of formulating a youth entrepreneurship strategy at a national level. Section III identifies youth entrepreneurship challenges by main policy areas and lessons learned from existing programmes around the world. The concluding section IV highlights key questions for further discussion.

GE.14-50160

1450160

Please recycle

Introduction

1. The United Nations Secretary-General has identified, in his second term, working with and for young people (of age 15–25) as one of his top priorities. Following the International Year of Youth 2010–2011, he asked the United Nations Volunteer Programme to establish a Unit on Youth and the United Nations Inter-agency Network on Youth Development to develop a System-wide Action Plan on Youth. Moreover, he appointed for the first time an Envoy on Youth.

2. Many countries are currently experiencing an unprecedented level of youth unemployment as a direct consequence of the financial and economic crisis of 2008. In many economies with high levels of young people, the number of formal jobs available is often insufficient to employ all youth entering the working population, to offer them prospects of a decent wage and to enable them to start and support a family. As a result, many are forced into the informal sector. To contrast this, encouraging the development of entrepreneurial talents among young people may effectively contribute – if paralleled by adequate policies addressing the constraints of the labour market – to achieving employment generation and inclusive growth.

3. Responding to the Doha Mandate (sub-theme 4, and paragraphs 8, 31(e) and 56(d)), this note discusses youth entrepreneurship trends, policies and measures, building on the UNCTAD EPF.[1] The EPF, launched in Doha in 2012, aims to support policymakers in developing countries and economies in transition in the design of initiatives, measures, and institutions to promote entrepreneurship. It suggests policy options and recommends actions in priority policy areas that have a direct impact on entrepreneurial activity.

4. This note discusses the EPF recommendations in the context of youth entrepreneurship, with a view to facilitating youth participation in enhancing the productive capacity of developing countries and economies in transition, and to strengthening their resilience to the global crisis and future challenges. It also builds upon the discussions held during the UNCTAD Ad Hoc Expert Meeting on Youth Entrepreneurship for Development in November 2013, and reflects good practices and lessons learned in the area of youth entrepreneurship promotion, including the implementation of the UNCTAD Empretec programme, which, in its operations, also addresses common challenges affecting young entrepreneurs.

I. Youth entrepreneurship for employment creation

5. The contribution of entrepreneurship to job creation and growth has been reiterated many times over recent years. It is estimated that in the last decade new firms generated between 1 and 6 per cent of employment in Organization for Economic Cooperation and Development (OECD) countries (OECD, 2010). High-growth enterprises have played a particularly important role, as the 10 per cent most rapidly growing enterprises have created between 50 and 60 per cent of gross employment gains. Consequently, entrepreneurship policies and framework conditions are among the key policies required to generate a positive effect on employment. Impact assessment data on Empretec demonstrate, for example, an increase in employment generated by enterprises that benefitted from entrepreneurship-development services (box 1).

[1] See http://unctad.org/en/Pages/DIAE/Entrepreneurship/UNCTAD_Entrepreneurship_Policy_Framework.aspx.

Box 1. Empretec contribution to job creation

Empretec is a capacity-building programme of UNCTAD, coordinated by the Enterprise Branch of the Division on Investment and Enterprise. Established in 1988, the programme has expanded to 34 countries and has assisted over 310,000 entrepreneurs through its network of local market-driven Empretec centres. Impact assessments from the Empretec programme confirm that investing in entrepreneurship development leads to job creation. In Brazil, for example, 62 per cent of entrepreneurs who benefitted from the Empretec workshop generated an average employment growth of 16 per cent per annum. Likewise, in businesses surveyed, employment grew by 14 per cent in the United Republic of Tanzania and 38 per cent in Zambia following Empretec workshops. This highlights the relevance of investing in the development, growth and survival of entrepreneurs to employment generation.

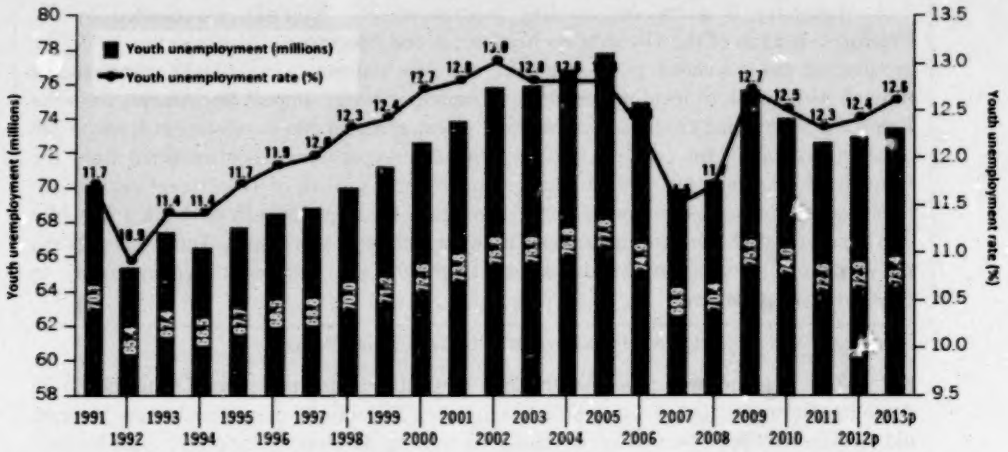
Source: UNCTAD, *Empretec Annual Report 2012* (UNCTAD, 2013).

6. This is even more urgent in the area of youth employment considering the future demographic trends. It is estimated that each year 121 million young people turn 16 years old, of which 89 per cent will be searching for work in developing regions (United Nations Children's Fund, 2012). According to the latest report by the International Labour Organization (ILO, 2013), a youth employment crisis is currently in place, potentially leading to negative long-term impacts which could be felt for decades. Globally, there are 73.4 million young people – 12.6 per cent of the total youth population – who were jobless in 2013, with an increase of 3.5 million between 2007 and 2013 (figure 1).

7. In advanced economies, gains in youth jobs have been wiped out by slow economic recovery. Longer job-search periods and lower job quality are becoming routine, as well as a growing youth discouragement, as part of a broader and widespread social downturn. Moreover, when adult and youth unemployment rates are compared, a large number of developed countries have roughly four times more unemployed youth as they have unemployed adults (Vogel, 2013).

8. In developing economies, due to higher poverty levels and shares of vulnerable population, the youth employment challenge is related to the predominance of poor quality, informal jobs. There are also geographic disparities: in 2012, youth unemployment was 28.3 per cent in the Middle East and 23.7 per cent in North Africa, while being lower in East Asia (9.5 per cent) and South Asia (9.3 per cent) (ILO, 2013).

Figure 1
Global youth unemployment and unemployment rate, 1991–2013



Source: ILO Trends Econometric Models, April 2013.
Note: p = projection.

9. Overall, the global youth unemployment rate is projected to rise to 12.8 per cent in 2018, with growing regional disparities, as it is expected that improvements in emerging economies will be offset by increases in youth unemployment in poorer, highly populated countries (ILO, 2013). As the global economic downturn persists, there is growing recognition among Governments and international organizations that youth entrepreneurship is a relevant strategic tool to address unemployment challenges.[2]

10. Establishing a new venture may have positive impacts on youth employment and economic growth, as it offers unemployed youth an opportunity to build sustainable livelihoods and to integrate into society. Young entrepreneurs, once established, are particularly active in high-growth sectors (Youth Business International and the Global Entrepreneurship Monitor, 2013). It has been found that self-employed youth have higher "life satisfaction" than youth in the same age group and are more likely to hire fellow youths (Simpson and Christensen, 2009), setting up fertile ground for further employment-creation dynamics. Self-employment by youth facilitated higher levels of transition into paid employment within three years compared to the transition from unemployment (Listerri et al., 2006).

11. The need for "supporting the provision of youth entrepreneurship measures" has been clearly stressed by the G20 Report of the Task Force on Employment released in 2013.[3] Enabling young people to start their own business activity and helping them to become successful takes them off the job market, possibly also generating jobs for others, and it is a promising avenue for promoting formalization. However, lack of experience and skills means that a very high percentage of youth-owned enterprises fail during the first few

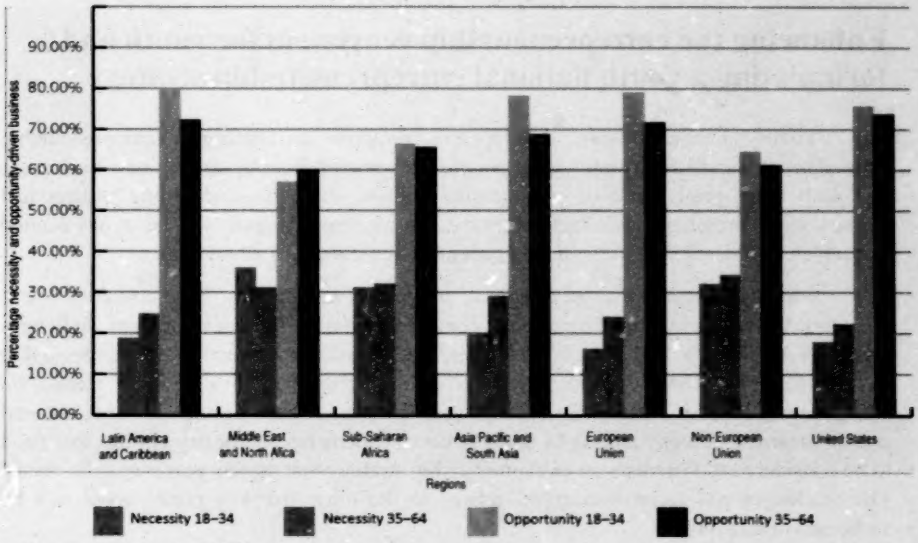
[2] The ILO (ILO, 2008) has provided specific guidelines on how to prepare national action plans on youth employment, taking into account the dimensions of both enterprise development and labour legislation. The main elements of active labour market policies and programmes that should be considered are: labour-market training, career guidance, job-search assistance, job-placement programmes, labour-market information, public works and community services, employment subsidies and entrepreneurship programmes.

[3] Avialable at http://en.g20russia.ru/docs/g20_russia/materials.html.

months of operation. In addition, young people face hurdles to setting up a formal business that are specific to their age group, and entrepreneurship policies need to incorporate elements that are targeted specifically to them.

12. According to the latest report by Youth Business International and the Global Entrepreneurship Monitor (Kew et al., 2013), the job creation potential of businesses is related to their growth orientation. Growth orientation, in turn, largely depends on whether entrepreneurs are "necessity-driven" or "opportunity-driven". The report provides comparable cross-country and cross-regional data according to which sub-Saharan Africa has the highest percentage of youth business with low growth expectations (85.5 per cent) and the lowest percentage of youth business with high growth expectations (3.9 per cent).[4] The youth in Asia Pacific and South Asia show the highest levels of growth expectations, followed by the United States of America, Latin America and the Caribbean, the European Union, the Middle East and North Africa. Sub-Saharan Africa, the Middle East and North Africa are the areas with the highest percentage of young entrepreneurs who started their businesses because of necessity or because they had no other option (figure 2).

Figure 2
Necessity and opportunity entrepreneurs by age and region



Source: Kew et al. (2013).

13. Young potential entrepreneurs are impacted by the same barriers as entrepreneurs in general. As a group with specific characteristics and profiles, however, they face particular obstacles. A Barclays Bank survey (Schoof, 2006), for example, outlines that the biggest barriers are social or cultural, as follows in order of importance:

(a) Not being taken seriously by colleagues or business contacts;

(b) Age discrimination by suppliers or customers;

[4] The Global Entrepreneurship Monitor defines growth-oriented entrepreneurs as those intending to create five or more jobs within five years. Low-growth businesses are those projecting 0–5 new employees in five years, medium–growth businesses are those projecting 6–19 employees, and high-growth businesses as those projecting 20 or more employees. The difference between current and expected employees indicates growth expectations.

(c) Age discrimination by institutions or Government;

(d) Lack of support from family or friends.

14. A recent survey (Ernst and Young, 2013) of more than 1,500 entrepreneurs from developed and developing countries confirms the relevance of cultural barriers for young entrepreneurs, and in particular the lack of recognition of the entrepreneur status and the need for society to better tolerate failure. It also highlights, however, the importance of financial, educational and regulatory barriers, as the majority of the young entrepreneurs surveyed needed help with access to funding (73 per cent), lacked innovative credit sources (49 per cent), wanted higher tax incentives (41 per cent) and longed for a reduced burden of government regulations (29 per cent).

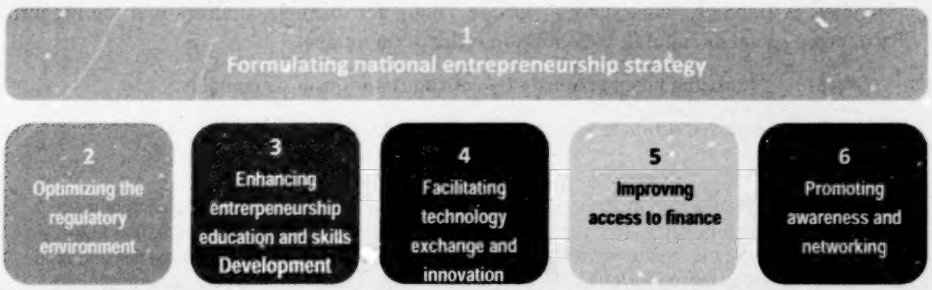
15. Many technical programmes exist to address issues such as young people's relative lower level of business skills and entrepreneurial experience, or the difficulty to access capital for start-ups due to limited credit history and lack of financial literacy. However, the barriers that youth face in starting a business represent much more than these. To enhance the participation of young people in economic development and empower them through entrepreneurship, Governments need to pursue a holistic policy approach and span the six areas spelled out in the UNCTAD EPF, as discussed in sections II and III.

II. Enhancing the entrepreneurship ecosystem for youth and formulating a youth national entrepreneurship strategy

16. Youth entrepreneurship development requires an enabling entrepreneurship ecosystem. It should encourage young people and support them in starting new businesses and help them grow. Isolated programmes without strategies and strong institutional frameworks addressing all relevant policy areas in a systemic manner will have only limited impact, as a bottleneck in one area may become a bottleneck for all other areas.

17. While recognizing that, in designing entrepreneurship policy, "one size does not fit all", and that the national socioeconomic context and the specific development challenges faced by a country will largely determine the overall approach to entrepreneurship development, UNCTAD has identified six policy areas that have a direct impact on entrepreneurial activity (figure 3). This section focuses on the formulation of a national entrepreneurship strategy and looks at the necessary elements and policy options that need to be considered to formulate an entrepreneurship strategy that targets youth-specific needs. The challenges and recommendations related to the other five key policy areas will be addressed in section III.

Figure 3
UNCTAD's Entrepreneurship Policy Framework



Source: UNCTAD Entrepreneurship Policy Framework and Implementation Guidance, 2012; see www.unctad.org/epf.

18. Formulating a youth national entrepreneurship strategy is necessary to guarantee effective results. In an entrepreneurial ecosystem, multiple stakeholders – Government, international organizations, non-governmental organizations (NGOs), schools, universities, public–private sector organizations, investors, financial institutions, new and established entrepreneurs, transnational corporations, research laboratories – play a key role in facilitating entrepreneurship. To put in place a system of mutually beneficial and self-sustaining relationships, the role of all these actors has to be continuous and coordinated. This can be achieved through a national entrepreneurship strategy, which is the overarching policy area of the EPF.

19. The strategy should clearly identify how youth entrepreneurship will contribute to national goals such as job creation, innovation and/or economic growth. It is important that it is aligned with national development policies. For example, South Africa's Youth Enterprise Development Strategy (box 2) is carefully aligned with the country's economic growth and industrial policy plans, as well as its National Youth Policy and economic empowerment policies of particularly disadvantaged groups including black South Africans and women.

Box 2. South Africa's Youth Enterprise Development Strategy

Through its Youth Enterprise Development Strategy, the Government of South Africa intends to foster youth economic participation by enhancing youth entrepreneurship and accelerating the growth of youth-owned enterprises. The Strategy, led by the Department of Trade and Industry, sets a framework for 10 years (2013–2023) and includes interventions in the areas of mentorship and coaching, incubation and business infrastructure support, as well as financing and awareness initiatives. As a comprehensive set of measures in different policy areas, the Strategy has not been conceived as a stand-alone planning document but is aligned with other national development policies, including the objective of empowering youth economically, which is one of the goals of the National Youth Policy. It is also in line with the objectives of enterprise development and industrialization in the country's New Growth Plan Framework, the Framework on Gender and Women Economic Empowerment, the Integrated Small Business Development Strategy and the National Industrial Policy Framework.

Source: See http://www.thedti.gov.za/news2013/YEDS_strategy2013.pdf.

20. To maximize policy synergies a strong institutional framework is required. This involves designating a lead institution, establishing a clear coordination mechanism and ensuring adequate financing. Governments should take care not to let youth entrepreneurship be a "stand alone area". Many of the policy measures necessary in the areas of finance, education and the regulatory framework may be outside the jurisdiction and technical expertise of any single ministry. Relevant ministries may include therefore, the ministry of youth in a prominent role, but also the ministries of education, of labour, of trade and commerce and of innovation.

21. Whichever institution has a lead role in the youth entrepreneurship strategy, it is crucial that it engages with all other key public and private institutions so that these are involved in the strategy. The Commonwealth secretariat, for example, has developed a guiding Framework for Youth Enterprise, which adopts a holistic approach and emphasizes the importance of engaging all the implementing agencies for each policy area including finance, business development services and capacity-building, thus facilitating access to information, technology development and transfer, and access to markets (Commonwealth Youth Programme, 2013).

22. It is important to define how youth entrepreneurship is aligned with entrepreneurship promotion in general at the institutional level. The case of Colombia is an interesting example as it has a policy on fostering a culture of entrepreneurship as well as a national policy and strategy on entrepreneurship. The country is also engaged in a regional entrepreneurship policy process which includes 10 countries from the Latin American region.[5] It has recently developed a specific youth entrepreneurship strategy called Colombia Joven Emprende 2013, which is part of the presidential programme on youth.[6] In other cases, entrepreneurship will be embedded into a country's national entrepreneurship strategy, such as is the case in Costa Rica.[7]

23. It is crucial for policymakers to understand the trends in youth unemployment and youth entrepreneurship and to identify those barriers that affect youth disproportionately. A good starting point to understand the challenges and profiles of young entrepreneurs in a country is to organize events and facilitate stakeholder's dialogue to map the current status of youth entrepreneurship and gather both qualitative and quantitative baseline information. At first, this requires identifying who the specific stakeholders for youth entrepreneurship are, as these may be different from those for entrepreneurship in general. It is important to engage youth and young entrepreneurs at this stage of the policy dialogue process. This may require creative approaches to identify the means of communication that most effectively target youth, such as social media, schools, extra-curricular activity platforms, NGO's, communities, and the like.

24. In this regard, Barbados has implemented various initiatives that target youth entrepreneurs. For example, the Barbados Entrepreneurship Foundation, a multi-stakeholder initiative aiming to promote a holistic approach to entrepreneurship in the country, hosts the Barbados National Entrepreneurship Summit that targets youth from 18 to 30 years of age at the early start-up stage.[8] Within the country's Ministry of Education, Youth Affairs and Sports, Barbados also has a Youth Entrepreneurship Scheme, which aims to nurture and support the entrepreneurial drive in youth. Some of its programmes and support services, such as "YES Juniors", target students at the primary and secondary levels directly in their schools.[9]

25. Another important challenge is related to identifying target subgroups within young entrepreneurs. This involves defining target subgroups within youth that may include girls and women, youth with disabilities, young people in rural areas, those working in the informal sector and youth from ethnic minorities, among others. Each of these subgroups may require specific policy measures to address the particular challenges they face in starting a business and making it survive and grow.

26. For example, in December 2013, Mali held the fourth edition of its National Entrepreneurship Days series, which was dedicated to rural youth entrepreneurship and which served as a platform to communicate the initiatives being undertaken at the policy level. It helped sensitize unemployed youth in rural areas towards entrepreneurship,

---

[5] See http://www.apccolombia.gov.co/?idcategoria=285#&panel1-6.

[6] See http://wsp.presidencia.gov.co/ColombiaJoven/estrategias/Paginas/colombia-joven-emprende.aspx.

[7] See http://www.pyme.go.cr/media/archivo/normativas/PoliticaNacEmpren.pdf.

[8] See www.barbadosentrepreneurshipfoundation.org.

[9] See http://www.commerce.gov.bb/index.php/departments-a-agencies/business-development-unit/small-business-agencies/youth-entrepreneurship-scheme-yes.

recognizing that the majority of the population of the country is young, lives in rural areas and may be subject to a range of challenges that affect their entrepreneurship potential.[10]

27. The European Commission has also taken into consideration how challenges vary across different groups of young people in a recent policy brief on youth entrepreneurship that looks at youth with different levels of education, unemployed youth and youth from ethnic minorities. It also distinguishes between disadvantaged youth – those who may be unemployed or inactive, live in a difficult environment or have major gaps in financial, human and network capital – and other young people who face less substantial obstacles but at the same time also represent an opportunity to increase entrepreneurship participation with appropriate policy intervention (OECD, 2012).

28. Knowledge-sharing and best practice exchange initiatives useful for policy can also stem from the private, academic or NGO sectors, and they can be at the international level that allows for benchmarking across countries. For example, Youth Business International, a global network of independent non-profit initiatives supported by the Prince of Wales, hosts an annual Global Youth Entrepreneurship Summit that last year gathered more than 450 people from 44 countries. The Summit aims to share knowledge and further develop a global community of practice and learning in the sphere of youth entrepreneurship.[11]

29. At the national level, the Welsh Government has also initiated and implemented an overall government-led Youth Entrepreneurship Strategy (box 3), which has achieved important social and economic gains for the country.

Box 3. Youth Entrepreneurship Strategy – an action plan for Wales

Since the first launch by the Welsh Government of the Youth Entrepreneurship Strategy (YES) in 2004, in Wales more young people want to set up their own businesses and the proportion actually doing so is significantly ahead of the average for the United Kingdom of Great Britain and Northern Ireland (over 10.2 per cent, compared with the United Kingdom average of 6.2 per cent) (Global Entrepreneurship Monitor, 2011). At the 2008 European Charter for Small Enterprises Conference, YES was voted one of the top 10 good practices in small and medium-sized enterprise policies "most beneficial to implement". The Strategy aims to equip young people aged 5–25 with entrepreneurial skills and attitudes to raise aspirations so they can fulfil their potential. The Strategy is aligned with other national policies, notably education policies. Enterprise and entrepreneurship activity is formally embedded into the education system as early as the age of 5 and upward until the Welsh Baccalaureate, in a manner that employability and entrepreneurship skills become an essential part of students' core education. The strategy engages entrepreneurship champions to promote its message, including champions in higher education institutions. Platforms such as www.BigIDeasWales.com have been established to share best practices and information about opportunities in Wales. Other innovative aspects include a network of incubators that provide seed funding and coaching to young start-ups.

Source: Youth Entrepreneurship Strategy: An action plan for Wales 2010–15. See www.cymru.gov.uk.

30. Among the main lessons learned from the implementation of the EPF and good practices to be considered are the following:

(a) Holistic approach encompassing all key areas that impact young entrepreneurs and development of an entrepreneurship ecosystem for youth;

[10] See http://www.guide-entreprise.org/pt/agenda/agenda-2013/agenda-2013-decembre/agenda-2013-decembre-3.html.

[11] See www.youthbusiness.org.

(b) Alignment with other national policies and in particular with education policy, engaging all key stakeholders in implementation of the strategy;

(c) Use of effective approaches such as entrepreneurship champions to target youth in outreach initiatives of the strategy;

(d) Effective implementation, clear performance indicators and regular monitoring of impact and learning from lessons learned.

III. Youth-specific challenges by policy area

31. This section illustrates the main challenges faced by youth entrepreneurs, best practices and related recommendations by policy area.

A. Optimizing the regulatory environment for youth

32. Start-ups face numerous administrative burdens including business registration, tax administration, obtaining investment approvals and business licences, coping with copyright and patent regulations, access to work space and customs clearances. Unfavourable or complex tax systems can kill off young enterprises in the start-up phase and during the critical first years of business. In particular, young entrepreneurs with little experience are either deterred by complex tax regulations or are afraid of failure due to non-compliance to legal requirements. Furthermore, there is a lack of supportive regime to smooth the transition between school and the establishment of their businesses.

33. Complex business registration procedures and high costs can be major obstacles for young people. These procedures are often associated with bureaucracy, corruption and lack of transparency or accountability. The simplified regulation introduced by Italy (box 4) is a case of how it is possible to minimize regulatory hurdles for start-ups. This does not neglect the importance of promoting transparency and reducing regulatory hurdles for the entire business community, when appropriate.

Box 4. The simplified limited liability company regulation in Italy

In Italy, the burden of bureaucracy and business start-up requirements has been recognized, along with unsustainable taxation levels, as limiting international competitiveness. Following the entry into force of a law decree in 2012, the Italian Government has introduced a new article in the civil code (article 2463 bis) establishing the case of a simplified limited liability company (Srl). The amendment aims to simplify access to the formal sector for youth entrepreneurs, and to streamline business start-up registration costs, to encourage young people's access to self-employment. Under the old rule, the registration of an Srl required a minimum share capital of €10,000, thereby limiting youth entrepreneurs' participation in the formal sector. Since August 2012, entrepreneurs under 35 years of age are allowed to register a start-up upon the provision of share-capital of just one euro. Other benefits include the full elimination of set-up notary costs and a simplified accounting regime. In September 2013, one year after the entry into force of this new initiative, approximately 12,000 simplified Srl firms had been created by young entrepreneurs (against 5,000 registered by entrepreneurs of over 35 years).

Source: Unioncamere.[12]

[12] See www.unioncamere.gov.it.

34. Bankruptcy laws in many countries are often unreasonably punitive to business failure. Severe penalties for failure can greatly impact on the willingness of young entrepreneurs to engage in business. To overcome the negative social stigma associated with filing for bankruptcy, closing a business or a business failure, Think Young, a group which lobbies on behalf of youth on issues including entrepreneurship to the European Union, has launched a successful "Fail 2 Succeed" campaign which celebrates business failure as a learning requirement for future success and features the testimonials of "famous failures". It is targeted specifically at young entrepreneurs.[13]

35. In many countries, property rights are neither adequately defined nor protected. Registering property can be highly time and cost consuming. Poor enforcement of copyright, patent and trademark regulations can greatly disadvantage young people who are often not sufficiently familiar with this issue. As a consequence, they do not appropriately protect their business or they may find themselves caught in litigation with companies in the same sector or industry for copyright infringement.

36. Finally, in some countries, regulatory changes practically happen every year, sometimes even more frequently, reducing young entrepreneurs' planning reliability and putting their business at risk. As young entrepreneurs often cannot afford to hire a consultant (for example, an accountant), it is a complicated task for them to keep track of regulatory changes. It is important to include the voice of youth and young entrepreneurs in the dialogue on regulatory reform for starting a business. Viet Nam, for example, included the Viet Nam Young Entrepreneurs Association in its administrative procedures reform process "Programme 30".[14]

37. The following were among the main lessons learned and good practices for consideration:

(a) Matching of regulation and standards for youth entrepreneurship with national competitiveness goals;

(b) Coaching of young entrepreneurs through the start-up administrative process through information campaigns and public services;

(c) Introduction of fast-track mechanisms to facilitate start-ups;

(d) Minimization of the bankruptcy stigma and facilitation of re-starts.

B. Enhancing youth entrepreneurship education and skills

38. School environments often do not sufficiently introduce youth to the concept of entrepreneurship and self-employment as a career option. In many countries, key role models for youth, such as school teachers, are often not very aware of the need to inspire entrepreneurship. Entrepreneurship education therefore simply does not exist or has not been sufficiently adopted. Tools, resources and information material to support youth entrepreneurship are not readily available and there is a lack of interaction with real entrepreneurs and coaching opportunities.

39. An interesting example of how to introduce entrepreneurship in formal education curricula and reach out to students at the primary and secondary levels (up to age 17) is offered by Pedagogia Empreendedora, a programme implemented in 126 different cities of

[13] See www.fail2succeed.com.

[14] See http://www.amchamhanoi.com/wp-content/uploads/2013/06/Administrative-Reform-Procedure.pdf.

Brazil, involving a total of 340,000 students. An essential aspect of the methodology is to increase the quality and quantity of emerging ventures and to create a positive perception of entrepreneurship in the society. The methodology has been especially developed for children and teenagers, and instead of the traditional way of learning through knowledge transfer, it focuses on individual imagination and the definition of dreams, with teachers playing the facilitator's role of a creative thinking process.

40. At higher levels of education, entrepreneurship and training is too often viewed as a sub-discipline of business studies. This means that potential entrepreneurs in other fields such as science and technology are sometimes not being reached. Therefore, targeted education and training need to become associated with a wider range of disciplines. An academic approach to education nurtures skills that are appropriate to working in the public sector or large organizations and companies, but not for an entrepreneurial career. Students are neither encouraged nor educated to become entrepreneurs but rather managers.

41. In many countries there is a need to fill an enormous gap between secondary school education and the world of work. The kind of non-cognitive skills that entrepreneurs need to create successful business – such as resourcefulness, creativity, flexibility, determination, critical thinking, decision-making, leadership, focus – are the very skills that young people will increasingly need to survive in a fast-changing workplace, where jobs for life have become something of the past, and will determine whether or not they will become or continue to be entrepreneurs (Huber et al, 2012). In the United Kingdom, for example, the Quality Assurance Agency for Higher Education provides advice for educators for creating entrepreneurship curricula so that they can help students develop enterprising behaviours, attributes and skills as well as entrepreneurial mindset capabilities.

42. In most education systems, there is still a clear lack of practical and experiential learning as well as of teamwork learning. Relationships between educational institutions and the business community (school industry partnerships, combination of classroom learning and structured on-the-job experience) do not exist or are poorly developed. The lack of support structures is a common complaint among young entrepreneurs.

43. At the global level the increasing percentage of youth that are completing secondary schooling and above is a positive occurrence, as both self-employment and employment opportunities are more likely to be accessible to individuals with an advanced level of education. However, the difficulty in perceiving opportunities, lack of self-confidence in having the skills needed to start a business, as well as the fear of failure could continue to act as barriers to enterprise creation. It is therefore important that both formal education and skills-development opportunities be tailored to the specific challenges and needs the youth face when they think about entrepreneurship. This includes mentoring programmes with experienced entrepreneurs and business leaders, and extracurricular activities, such as the technical and behavioural training provided by Empretec (box 5).

Box 5. UNCTAD Empretec programme's initiatives for youth

Based on its 25-year-long experience on entrepreneurship development, the Empretec programme has also been focusing in the past few years on youth entrepreneurship. Trying to address some of the most common challenges affecting young entrepreneurs, Empretec centres have developed and rolled out youth-specific initiatives.

Business Development Centre–Empretec Jordan youth entrepreneurship and career path programmes

The Business Development Centre–Empretec centre in Jordan launched a number of youth-focused initiatives that effectively address issues related to inadequate employability skills and lack of a clear career vision and entrepreneurial spirit. Attention is given to short-

and long-term youth educational needs: there are, therefore, targeted interventions for university graduates, such as technical and managerial skills training, as well as exchange programmes with universities in the United States, Canada and the United Kingdom, aimed at providing networking opportunities with experienced entrepreneurs and business leaders.

Enterprise Uganda Business and Entrepreneurship Start-up Tool

Enterprise Uganda, the local implementing partner of Empretec, has developed and tested a youth empowerment model, the Business and Enterprise Start-up Tool (BEST), an attitudinal and mindset transformational tool for empowering both the educated urban and the rural-based populations to become engaged in economic activities. BEST addresses the challenge of negative attitudes towards self-employment as a viable career option, demystifying at the same time the perception by youth that they lack funds to start a business. Since 2007, over 40 BEST workshops have been conducted for more than 34,000 young people in Uganda. A survey conducted on 2,700 beneficiaries in the Gulu district, three months after the workshop, estimated that more than 600 new start-ups had been established as a result.

Source: See http://www.bdc.org.jo/Youth_Entrepreneurship__Career_Path_Program.aspx and www.enterprise.co.ug/best.htm, respectively.

44. The above-mentioned challenges and examples emphasize the need for concerted efforts in addressing the different issues arising in all phases of the educational and training system. The extent to which entrepreneurship and entrepreneurial qualities receive attention at the various stages of education plays a critical role in equipping the youngest generations with the right attitudes and skills for an informed decision about their future careers.

45. In this respect, the following points are key in defining and refining a comprehensive approach to entrepreneurship education and skills development:

(a) Identification of youth-specific needs and design of youth-oriented learning programmes, including extra-curricular training, tackling behavioural and skills-development aspects of self-employment and entrepreneurship;

(b) Alignment of entrepreneurship development programmes with national education curricula and implementation of specific training programmes for facilitators, trainers with business experience, and teachers on how to foster entrepreneurial skills in young people;

(c) Addressing entrepreneurship in the formative years of youth, starting at a very early age, to foster positive attitudes towards self-employment as a viable career option;

(d) Coordination with higher education institutions on setting up mentoring programmes with experienced entrepreneurs, promoting networking opportunities with business leaders and academic exchange programmes with leading institutions on entrepreneurship.

C. Improving access to finance for youth

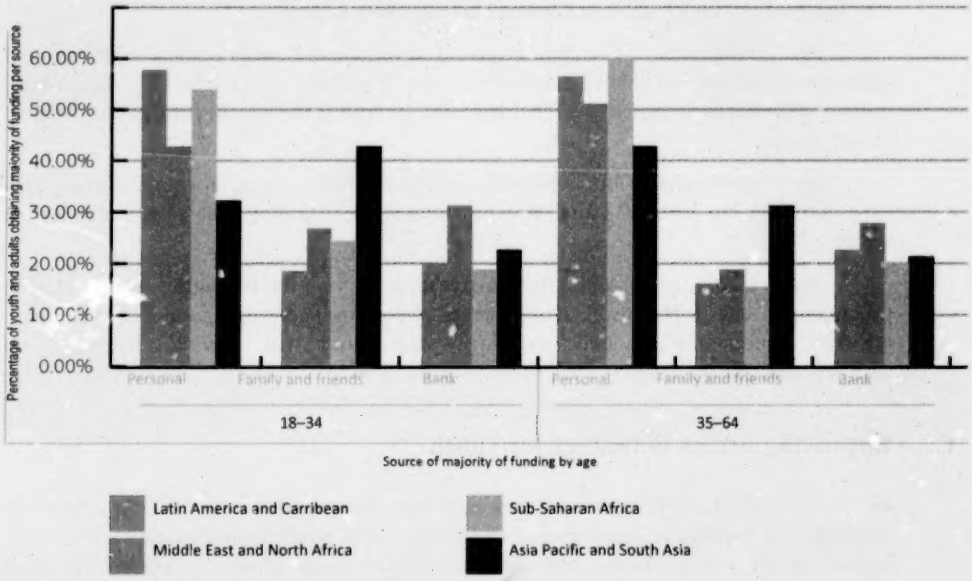
46. The lack of adequate start-up finance is one of the most mentioned impediments by young people seeking to create their own business. The gap between education and skills learned by the young entrepreneur and the complex world of start-up financing, which requires in-depth financial literacy levels, is sometimes very wide. Due to the lack of self-sustaining resources, the absence of credit history, sufficient collateral or guarantees to secure loans or lines of credit, young people are often seen as particularly risky investments and therefore face difficulties in accessing finance. Furthermore, some potential

entrepreneurs may be carrying student debts, which will make it even harder to secure financing for new ventures. In addition, funds requiring less or no collaterals (except a viable business plan) often charge significantly higher interest rates and fees.

47. Child and Youth Finance International leads the world's largest movement dedicated to enhancing the financial capabilities for children and youth. Its latest summit highlighted the importance supporting innovative solutions for providing financial access to children and youth. Because youth are so diverse and mobile, there is no unique solution for financial inclusion. Some ideas discussed included providing automatic savings accounts for students at primary schools, which can make all the difference for establishing lifelong learning, since early exposure to financial literacy is crucial (Child and Youth Finance Summit Report, 2013).[15]

48. Because of their age, young people are unlikely to have the type of business experience, track record or business skills that banks or other financial institutions would look for in assessing creditworthiness. There is evidence to suggest that the largest sources of start-up funding for young entrepreneurs are personal savings/assets, foregoing salaries and money from friends and family (either loans or donations). According to the latest Global Entrepreneurship Monitor and Youth Business International report (Kew et al., 2013), in developing countries the majority of funding for youth business is represented by personal resources, family or friends. The youth in the Asia Pacific and South Asia regions (41.5 per cent) and particularly China (62 per cent), are significantly more able to obtain funding from family and friends than in any other regions, while the youth in Latin America and the Caribbean, and the Middle East and North Africa regions are primarily reliant on personal funding. Young people in poorer regions such as sub-Saharan Africa are particularly disadvantaged, as to start a business they are less likely to have accumulated personal savings or have access to family resources (figure 4).

Figure 4
Source of funding to start a business by age



Source: Kew et al. (2013).

[15] Available at www.childfinanceandyouthinternational.org.

49. Young entrepreneurs working in the informal sector face particular difficulties to obtain start-up finance. They do not differentiate between enterprise assets and personal assets. A young entrepreneur is therefore directly and jointly held responsible for his/her liabilities. This contributes to difficulties for investors in dealing with entrepreneurs in the informal sector. The Kenya Youth Enterprise Development Fund (box 6) is an example showing the importance of initiatives such as flexible collateral loans to make access to finance easier for young entrepreneurs.

Box 6. The Kenya Youth Enterprise Development Fund

The Kenya Youth Enterprise Development Fund was established in 2006 with the overall aim of creating employment for young people through enterprise development at home and structured labour export abroad. The Fund's main objective is to provide flexible collateral loans at highly competitive rates to all forms of youth-owned enterprises, whether individual, companies, groups or cooperatives. The target is reached downstream through a network of financial intermediaries, whether microfinance institutions, registered NGOs involved in microfinancing, or savings and credit cooperative organizations for on-lending to youth enterprises. To date, the Fund has provided funding to over 157,000 youth enterprises, amounting to K Sh 5.9 billion. Many of the youth the Fund supported at inception have been able to scale their businesses up and are today employers. Moreover, the Fund has trained over 200,000 young entrepreneurs, supported thousands of youth to take up jobs overseas through the Youth Employment Scheme Abroad programme. Overall, it is estimated that over 300,000 jobs have been created in five years.

Source: See http://www.youthfund.go.ke.

50. Among the main lessons learned and good practices for consideration:

(a) Facilitation of collateral-free loan screening mechanisms to improve access of young entrepreneurs to relevant financial services;

(b) Promotion of public–private sector access to finance partnerships to build the capacity of the financial sector to serve start-ups;

(c) Provision of capacity-building grants and technical assistance to expand lending activities;

(d) Provision of financial literacy training to young entrepreneurs to encourage responsible borrowing and lending.

D. Facilitating technology exchange and innovation in the young population

51. Technology and innovation are an important component of youth entrepreneurship. Without access to affordable, well-located workspace and information and communications technology (ICT) equipment, young entrepreneurs face severe difficulties to set up and run businesses in many sectors of the economy, especially service sectors. Due to financial constraints, schools, especially in developing countries, cannot often afford to provide access to appropriate ICT infrastructure. An inadequate ICT infrastructure and training constrain the ICT capabilities of young people, which are increasingly crucial for many new entrepreneurial opportunities.

52. Obstacles to the accessibility of Internet services (especially in African least developed countries) include generally low levels of computer literacy in the population, poor infrastructures, and high costs of Internet services. Power availability is also scarce, with vast rural areas not connected to power grids, as well as frequent blackouts in major

urban areas. An interesting example of how to develop computer literacy is offered by the Pakistan Ministry of Youth Affairs through their Mobile Youth Computer Literacy and Awareness programme. The objective of this programme is to enhance the capabilities of youth in the rural and underdeveloped areas for the use of computers and modern information technology disciplines through mobile computer vans, and subsequently provide them with computer facilities so that the training is gainfully utilized. So far, the training programme has been completed successfully in 10 rural areas and training has been imparted to 360 youth.

53. Entrepreneurship must also be looked at from a broader perspective than the traditional viewpoint of individuals creating and developing businesses for economic purposes and profit. The point of view of inventiveness, creativity and innovation should also be considered. Young people have a thirst for knowledge and creative skills which must not be lost. They identify different opportunities and they must be encouraged to participate in solving global challenges. The Park of Creativity in Colombia, described box 7, is an interesting example of how this can be achieved.

Box 7. The Park of Creativity, Colombia

The International Park of Creativity is an innovation-driven programme whose main aim is to encourage and support young people's efforts towards creativity and invention, as well as technology commercialization. Promising adolescents and young inventors are supported at the centre's premises to transform their ideas into innovative concepts of potential scientific impact, which are then patented and granted intellectual property rights. Afterwards, the innovation is ready to be exploited, either through technology license-out or by inventors' own start-up companies, through venture capital or other types of early-stage business support. The Park has succeeded in combining innovation and technology exchange with more specific long-term development issues, such as capital formation and youth employment creation.

Source: International Park of Creativity; see http://www.parquedelacreatividad.org/.

54. The following elements may provide useful guidelines for Governments wishing to facilitate technology exchange and innovation among youth:

(a) Launch of awareness and capacity-building campaigns on ICTs to support the introduction of ICTs into business;

(b) Establishment of business incubators, knowledge hubs and science parks targeting students at young age;

(c) Provision of streamlined access to cost-effective patent protection to young researchers and innovators;

(d) Promotion of public–private partnerships and mixed public–private structures to diffuse innovation and to enhance university–industry collaboration;

(e) Creation of networks in knowledge-intensive sectors with leading science experts and academics around the world.

E. Promoting awareness and networking among youth

55. Social perceptions and perceived legitimacy of entrepreneurship are important factors in helping or hindering entrepreneurial behaviours. As highlighted in the previous section, having a supportive entrepreneurship culture is fundamental for young entrepreneurs. How young individuals perceive entrepreneurship depends particularly upon their personal environment, the role of youth in the labour market and the general

reputation, acceptance and credibility specific to the area in which the young person operates.

56. In many countries, entrepreneurship is not seen as a sustainable job or development tool and few young people view microenterprise as a viable alternative to formal employment. In these societies, perceptions remain that family sacrifices made to help young people gain a high level of education are not repaid if they become self-employed. Often entrepreneurship may be seen as an inappropriate career choice whose risk and instability may have social consequences.

57. High visibility events such as the Global Entrepreneurship Week (GEW) are therefore of the highest importance. UNCTAD has been a key partner since the creation of this event and the GEW is now the world's largest campaigns to promote entrepreneurship. Each year, during the third week in November, millions of people participate in more than 30,000 activities and events taking place across 88 countries to inspire and connect young people. During 2012 alone, presidents and prime ministers from 20 countries supported the GEW.

58. Young people willing to engage in business have additionally to cope with the particular reputation and stereotypes given to young entrepreneurs in society and in the business world. Due to their limited life and work experience, young entrepreneurs are sometimes not taken seriously and doubts may be expressed about their ability to turn their project into a sustainable business. But even with the right business skills and background, young entrepreneurs face high psychological pressures. The most important ones being the fear of failure, uncertainty, lack of self-confidence and stress.

Box 8. Start-Up Chile

Start-Up Chile is a programme created by the Government of Chile to attract early stage, high-potential entrepreneurs to Chile and to promote the country as a platform at the global level. The only requirement for participants to join the programme is "to engage in social impact activities", by transferring knowledge, skills or simply their global mindsets. As part of the initiative, they take part in seminars, talks and classes in local universities, mentor young Chilean entrepreneurs and share personal experiences. As a consequence, a strong demonstration effect is generated, which is expected to trigger the transformation of the people's mindset and increase youth's willingness to take up the opportunities offered by self-employment and entrepreneurship. To date, the programme has succeeded in involving more than 1,300 entrepreneurs from 65 countries, with the implementation of 750 projects. These have generated relevant media coverage at both the national and international level, so that awareness of the programme's work and its effects have multiplied and spilled over to other areas.

Source: www.startupchile.org.

59. The following good practices should be highlighted for consideration and replication to other countries:

(a) Launch of awareness campaigns to highlight the value of entrepreneurship to society and address negative cultural biases;

(b) Promotion of entrepreneurship opportunities at the national, regional and local level under a multi-stakeholder approach, including the organization of career fairs, summits on opportunities in specific economic sectors, youth forums;

(c) Public celebration of entrepreneurship role models through citizens participation and the dissemination of information on success stories;

(d) Facilitation of young entrepreneurs' business associations, exchange platforms, portals and clubs.

IV. Conclusions

60. This note has highlighted the challenges facing youth entrepreneurship as an important way to address growing youth unemployment on the one hand, and as a facilitator of economic growth on the other as it allows capturing creativity and innovativeness of young people. The note has also highlighted the importance of a national entrepreneurship strategy for youth to foster economic growth and job creation, and of a comprehensive policy approach spanning all relevant areas, as recommended by the EPF launched by UNCTAD in 2012. In particular, it has underlined the need for clear coordination at the ministerial level, for adequate funding, and for monitoring and evaluation mechanisms during the implementation process. Indeed, the periodic measurement of policy effectiveness is essential for the management of entrepreneurship policy and should incorporate feedback from lessons learned on an on-going basis.

61. By drawing on research, the experience of the Empretec programme and of several good practices from different countries, the note has illustrated the importance of programmes aimed at increasing the awareness of entrepreneurship as a possible career opportunity, of policies integrating entrepreneurship in schools at all educational levels, and of extra-curricula activities teaching non-cognitive skills such as persistence, creativity and proactivity, which, in a globalizing economy, are key assets to succeed in the labour market in general and not only for business creation. It also discusses possible policies and measures for improving a regulatory environment for youth entrepreneurship and for facilitating access of young entrepreneurs to finance and technology.

62. Among the main questions to be considered for further discussion by the Commission are the following:

(a) What are the main challenges, specific needs and good practices that could be considered in addressing the youth entrepreneurship agenda?

(b) Are targeted support programmes effective in overcoming barriers in the entrepreneurial process of youth? What could be improved?

(c) What is the role for civil society, NGOs, foundations in the public and private sectors in this context?

(d) What could development agencies such as UNCTAD do to facilitate youth entrepreneurship?

References

Commonwealth Youth Programme (2013). *Commonwealth Guiding Framework for Youth Enterprise*. p. 40. Commonwealth secretariat. London.

Ernst and Young (2013). Avoiding a lost generation: Young entrepreneurs identify 5 imperatives for action. White paper produced for the G20 Young Entrepreneurs Alliance Summit. June. Available at http://www.ey.com/Publication/vwLUAssets/Avoiding_a_lost_generation_June_2013/$FILE/Avoiding_a_lost_generation_LoRes_FINAL.pdf.

Global Entrepreneurship Monitor (2011). *United Kingdom 2011 Monitoring Report*. Available at http://www.gemconsortium.org/docs/download/2425.

ILO (2008). *Guide for the Preparation of National Action Plans on Youth Employment*. Youth Employment Programme, International Labour Organization. Geneva. Available at http://www.ilo.org/public/english/employment/yen/downloads/nap.pdf.

ILO (2013). *Global Employment Trends for Youth: A Generation at Risk*. International Labour Organization. Geneva. pp. 3–6. Available at http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_212423.pdf.

Kew J, Herrington M, Litovsky Y and Gale H (2013). *Generation Entrepreneur? The State of Global Youth Entrepreneurship*. Youth Business International and the Global Entrepreneurship Monitor. London.

Listerri J, Kantis H, Angelelli P and Tejerina L (2006). Is youth entrepreneurship a necessity or an opportunity? A first exploration of household and new enterprise surveys in Latin America. Inter-American Development Bank. Washington, D.C..

OECD (2010). Innovative SMEs and entrepreneurship for job creation and growth. Issue paper 1. OECD Working Party on SMEs and Entrepreneruship. Paris.

OECD (2012). Policy brief on youth entrepreneurship. European Commission and OECD. Available at http://www.oecd.org/cfe/leed/Youth%20entrepreneurship%20policy%20brief%20EN_FINAL.pdf.

Schoof U (2006). Stimulating youth entrepreneurship: Barriers and incentives to enterprise start-ups by young people. SEED working paper No. 76. Series on Youth and Entrepreneurship. p.11. International Labour Organization. Geneva.

Simpson J and Christensen JD (2009). Youth Entrepreneruship and the ILO. Note on practices and lessons learned. Small Enterprise Programme. International Labour Organization. Geneva.

UNCTAD (2013). *Empretec Annual Report 2012*. United Nations publication. UNCTAD/DIAE/ED/2013/2. New York and Geneva. Available at http://www.unctadxi.org/Sections/DITE/empretec/docs/EAR2012.pdf.

United Nations Children's Fund (2012). When the global crisis and youth bulge collide: Double the jobs trouble for youth. Social and economic policy working paper. Paris. Available at http://www.unicef.org/socialpolicy/files/Global_Crisis_and_Youth_Bulge_-_FINAL.pdf.

Vogel P (2013). The employment outlook for youth: Building entrepreneurial ecosystems as a way forward: An essay for the G20 Youth Forum 2013 in St. Petersburg, Russia. College of Management of Technology, École Polytechnique Fédérale de Lausanne. Switzerland. Available at http://www.entrepreneursship.org/uploads/1/0/6/4/10642206/ecosystems_paper_petervogel.pdf.

United Nations TD/B/C.II/25

United Nations Conference on Trade and Development

Distr.: General
14 February 2014

Original: English

Trade and Development Board
Investment, Enterprise and Development Commission
Sixth session
Geneva, 28 April–2 May 2014
Item 5 of the provisional agenda
Technology and innovation for inclusive development

Innovation policy tools for inclusive development

Note by the UNCTAD secretariat

Executive summary

Science, technology and innovation (STI) are major factors in the generation of economic and social change. The design and implementation of inclusive innovation policies can help achieve more equitable, sustainable and inclusive development. Incorporating social goals in STI policies requires consideration of the characteristics of people living in poverty, how they live and what they need in order to improve their livelihoods. To improve the effectiveness of those policies, it is important to deploy well-articulated goals, objectives and strategies on how to promote and carry out inclusive innovation in countries. It is thus necessary that inclusive innovation programmes be designed using an integrated approach that features not only the agents involved in the implementation of such programmes but also their beneficiaries. In this case, the beneficiaries would be people living in poverty and other groups vulnerable to socioeconomic exclusion.

This note describes inclusive innovation policies, highlights the market potential of serving low-income people and discusses some policy considerations that can contribute to making these policies more effective.

GE.14-50151

1450151

Please recycle

Contents

		Page
	Introduction	3
I.	Defining inclusive innovation	3
II.	Market opportunities through inclusive innovation	6
III.	Factors to be considered in the preparation of inclusive innovation policies	8
IV.	Institutions, regulations, and inclusive innovation	11
V.	Capacity-building through inclusive innovation and entrepreneurship	12
VI.	Conclusions	13
	References	15

Introduction

1. Science, technology and innovation (STI) are major factors in the generation of economic and social change. Therefore, STI policies can play a role in building inclusive societies in addition to their traditional role of enhancing productivity and business competitiveness. Further, promoting inclusive development is emerging as an objective of innovation policies alongside more traditionally established ones such as improving productivity or strengthening business competitiveness. The design and implementation of STI policies could become an alternative pathway for the promotion of inclusive innovation, which is central to the post-2015 development agenda (Department of Economic and Social Affairs, 2012).

2. The number of people living in extreme poverty halved between 1990 and 2010, and in developing regions the proportion of people living on less than a $1.25 a day fell from 47–22 per cent in this period – thus achieving the target of reducing extreme poverty five years ahead of the deadline set by the Millennium Development Goals. Nevertheless, 1.2 billion people, mainly in developing countries,[1] are still living in extreme poverty. Since social development challenges are largely concentrated in developing regions, improving the understanding of the role of inclusive innovation policies is especially relevant to these countries.

3. At the same time, it is important to recognize that although inclusive innovation policies can bring the benefits of technology and innovation to the poor and the excluded, they do not represent a panacea for the ills of poverty and social exclusion. Investing in technological upgrading in the formal economy, facilitating the transfer of technology to domestic farms and firms, strengthening national innovation capacities and supporting indigenous innovation remain critical avenues through which STI can increase the productivity and raise overall income levels of developing countries.

4. Incorporating social goals in STI policies requires consideration of the characteristics of the poor, how they live and what they need to improve their livelihoods. At the same time, strengthening the linkages between inclusive innovation and the rest of the national innovation system also calls for the creation of appropriate incentives and the development of institutions that stimulate participation of the private sector in creating innovation that meets the needs of people living in poverty.

5. Following this introduction, section I presents definitions of inclusive innovation. Section II describes the market opportunities for the private sector to participate in low-income markets. Section III presents some considerations related to the design of public policies in inclusive innovation. Section IV analyses the significant role of institutions in the design and implementation of inclusive innovation policies. Section V discusses capacity-building strategies for low-income markets. Finally, section VI presents some conclusions.

I. Defining inclusive innovation

6. The concept of inclusive innovation originates in developing countries, where the poverty of many of their inhabitants results in their exclusion, not only from the benefits of scientific and technological advancement, but also from access to the satisfaction of their basic needs (Mohnen and Stare, 2013). Several other terms, such as innovation for the

[1] See http://www.un.org/millenniumgoals/poverty.shtml (accessed 10 February 2014).

bottom of the pyramid, below-the-radar innovation, pro-poor innovation, and frugal and reverse innovation, are also associated with efforts to address the needs of low-income people (George et al., 2012; Berdegué, 2005).[2] Two recent definitions of inclusive innovation are as follows:

(a) The World Bank defines inclusive innovation as any innovation that helps expand affordable access to quality products and services that create and increase livelihood opportunities for excluded populations (World Bank, 2013:8). It identifies five features that characterize inclusive innovation: affordable access; sustainable production; goods and services that help create livelihood opportunities; orientation towards excluded population, primarily those at the base of the pyramid; and significant outreach.

(b) According to Foster and Heeks (2013a), inclusive innovation refers to the inclusion in some aspect of innovation of groups that are currently marginalized. The group most often identified is that with the lowest income, but the focus of concern may also include women, youth, persons with disabilities and ethnic minorities.

7. The notion of inclusive innovation also appears to share some characteristics with the concept of appropriate technology. This concept arose during the 1960s with the recognition that technological progress was largely directed to meet the needs of high-income populations and designed to operate in developed countries. This meant that it was not appropriate for low-income countries (Kaplinsky, 2011).[3] The development and diffusion of appropriate technologies was largely carried out by non-governmental organizations (NGOs) and aid agencies; it was not the result of profit incentives (Kaplinsky, 2011).

8. Although the concept of appropriate technologies was influential in policy debates throughout the 1970s, eventually three problems made it lose visibility on development agendas. The first difficulty was a shortage of innovative entrepreneurship in low-income countries. The second was that the capabilities required for innovation were concentrated in high-income countries. Third, there was a lack of effective demand in low-income countries, in particular by poor consumers. However, the global diffusion of capabilities and the fast growth of economies with large aggregate demand potential among low-income people have renewed interest in the development of innovations to meet the demand of this market (Kaplinsky, 2011). Although the methods have changed, the mission of inclusive innovation does not differ significantly from those identified by the appropriate technology movement (Bhatti and Ventresca, 2012).

9. In terms of type of innovation, the development of inclusive innovation is not necessarily restricted to higher technical specifications. It can also consider improvements in terms of suitability and efficiency in products and services (Bound and Thornton, 2012). Inclusive innovation relies not only on technological innovation but also on workflows, delivery systems and business process innovation to lower costs and increase access (World

[2] Zeschky et al. (2011) define frugal innovations as "good-enough, affordable products that meet the needs of resource-constrained consumers. According to Agarwal and Brem (2012), frugal innovations are generally developed for their home countries and not meant for worldwide distribution. In contrast, reverse innovation develops market-oriented products in emerging economies through globalized innovation teams, which are meant to be sold worldwide from the beginning (Immelt et al., 2009). This means that a distinction between frugal and reverse innovation is important, as reverse innovation is also becoming a vital competence for multinational coroporations (Agarwal and Brem, 2012).

[3] Appropriate technologies for low-income countries were supposed to be labour-intensive, simple to operate and repair, making products for low-income consumers on a small scale, and with minimal impact on the environment (Kaplinsky, 2011).

Bank, 2013). This means that inclusive innovation can be developed from cutting-edge research or it can consider fairly rudimentary or previously existing technologies. This, however, does not limit its potential to produce significant impact.

10. The design and implementation of inclusive innovation instruments recognize development as socioeconomic inclusion rather than mere economic growth (Foster and Heeks, 2013a). Inclusive innovation is focused on facilitating access to essential goods and services and enhancing economic empowerment through knowledge creation, acquisition, adaptation, absorption and deployment efforts targeted directly at the needs of excluded populations, primarily at the bottom of the pyramid (World Bank, 2013:8). The structures and processes required to design and implement innovative technologies for people living in poverty are the core focus of inclusive innovation. In most developing countries, namely India, China, Brazil and South Africa, inclusive innovation is recognized as one of the most important goals of socioeconomic development (Gupta, 2007).

11. A defining characteristic of different approaches aimed at finding appropriate and relevant technologies is the concept of inclusiveness. As mentioned by Foster and Heeks (2013a), inclusive innovation also includes the development, diffusion and outreach of innovations that improve the conditions of less advantaged groups other than the poor. The notion of inclusiveness is important in particular for gender and STI, where policymakers face the critical task of facilitating women's access to technologies that improve their livelihood and opportunities (UNCTAD, 2011). An example of inclusive innovation that considers the development of mobile applications to strengthen the entrepreneurial capacities of rural women in India is currently being carried out by the Government of this country in collaboration with NGOs and private companies (see box 1).

Box 1. Mobile ICT for rural women in India

An initiative aimed at increasing the entrepreneurial capacity of women is carried out by the local government of Gurajat (India) in collaboration with the Cherie Blair Foundation and Vodafone. The project developed a mobile application tailored to the needs of the women belonging to Rural Distribution Network India (RUDI). This network is formed by the Self-Employed Women's Association, commonly known as SEWA.

Although the women of the network already have mobile phones, the project developed a special mobile service that allows them to engage in real-time communication with RUDI management, check supply levels and text orders instantaneously. This mobile application uses a Java interface through which Rudibens (the women who form the network) are able to capture sales orders and place orders for new stock using their simple feature phones. This information is collected and transmitted to a central database using basic text messaging. The back end of the application stores information for RUDI's management, financial and auditing requirements. The mobile application also generates several reports for the Rudibens on their phones to help keep essential information about their individual businesses at their fingertips (Cherie Blair Foundation for Women, 2012).

The benefits of this project should include reduced time and travel costs, as well as efficiency gains in processing time, which translates into higher income and increases the time available for women to devote to other activities, such as developing their businesses and taking care of their families. Women will avoid trips to the warehouse by placing their orders through the mobile service (one trip to place the order and one to pick it up, which in some cases can take up to seven hours). After their orders are placed, they are packed and distributed to the women in the villages (Vodafone, 2012).

This initiative was launched in January 2013 and it is expected to reach 2,000 women entrepreneurs over a three-year period.

Source: UNCTAD, 2014.

12. For inclusive innovation, diffusion and absorption are the most important phases, a point that will be further elaborated in section III of this note (World Bank, 2010; UNCTAD, 2011). As identified by UNCTAD (2011), pro-poor innovation is intrinsically difficult to understand through linear models of innovation, which tend to emphasize the research and development (R&D) aspects of the innovation process. Inclusive innovation is more suited to the consideration of a system of innovation approach in which communities, local entrepreneurs and development stakeholders engage in network relationships without a strong hierarchical process or order (UNCTAD, 2011:11). Along the same lines, Berdegué (2005:9) claims that a pro-poor innovation system could be defined as a multi-stakeholder social learning process that generates and puts to use new knowledge and that expands the capabilities of the poor. This definition places greater emphasis on the process rather than the product (knowledge), while at the same time highlighting the social process of learning, discovery and utilization that is mainly responsible for the effective and sustainable expansion of the opportu ities of the poor.

II. Market opportunities through inclusive innovation

13. There are mainly three ways the private sector can help improve the lives of the poor: by creating jobs and increasing the productivity of the poor, by addressing some of their needs through corporate social responsibility initiatives and by developing affordable products and services tailored to the needs of low-income consumers (World Bank, 2010:344). Inclusive innovation policies are mainly oriented to influencing the third. In this regard, people living in poverty and other groups at risk of social exclusion can participate in inclusive innovation either as innovators or as users of innovations.

14. Generally, the private sector does not focus on developing products and services for them because of the widespread perception that there are no profits to be made in low-income markets (World Bank, 2010:344). When considering the potential market for innovation that the poor represent, it is important to consider two issues. First, often the poor pay much more for basic products and services than the better off. For instance, informal lenders charge high interest rates to poor people.[4] Second, the aggregated purchasing power of the low-income segment may present significant opportunities for market-based approaches to increasing their productivity and incomes and to empowering their entry into the formal economy (Prahalad, 2006; World Bank, 2010). Therefore, innovation can offer private companies an opportunity to establish profitable operations in this segment of the market, bringing lower-cost and better-quality goods to poor consumers and working in collaboration with other players in the innovation process (Prahalad, 2006; World Bank, 2010).

15. The objective of developing products and services for low-income groups is to create capacity for them to increase their income so they can afford to consume more. Building the capacity to consume is based on three principles: affordability, access and availability (Prahalad, 2006).

16. Affordability. This should be achieved without sacrificing quality or efficacy and should be independent of the type of new product or service introduced.

17. Access. The distribution and commercialization strategies of the products and services must consider where the poor live as well as their work patterns. For instance, since bottom-of-the-pyramid consumers cannot travel great distances, stores must be easy

[4] For instance, people in Dharavi, India, pay 600–1,000 per cent interest for credit from local moneylenders, which is significantly higher than bank interest rates (Prahalad, 2006).

to reach. This places great emphasis on intensity of geographical distribution when designing distribution strategies.

18. Availability. In general, low-income consumers base their decision of consumption on cash availability. This means they usually cannot defer buying decisions. Therefore, availability and distribution efficiency are critical factors in serving low-income consumers.

19. Advanced commercial technologies that are common in the developed world are often ill suited to the needs of low-income consumers or may not have demand because of the important budget constraints faced by these consumers. This is because many leading technologies are developed without considering the needs of these groups, based on the belief that they do not have resources allowing them to consume (UNCTAD, 2011).

20. Local firms are not the only ones beginning to service the bottom-of-the-pyramid markets, though it may be argued that they have a better knowledge of the needs of local consumers. Multinational corporations are also establishing themselves in emerging markets and changing their innovation strategies by engaging in frugal and reverse innovation (Agarwal and Brem, 2012). According to Aubert (2005), constraints such as low income and poor infrastructure have been turned into drivers of innovation in low-income contexts. Companies in emerging markets are starting with the needs of some of the world's poorest people and redesigning not just products but entire production processes to meet those needs. Tata Consultancy Services is an example of a multinational corporation innovating to participate in low-income markets (see box 2).

Box 2. Affordable products for low-income consumers in the global South

Starting with the needs of resource-constrained consumers in developing countries, some companies are adapting products to their preferences and pockets. Tata Consultancy Services developed a low-technology water filter that purifies water with rice husks, a common waste product in India. Tata Chemicals, the maker of the device, produced this portable, robust device for an initial cost of $24 dollars and $4 dollars for the replacement filter. In a similar vein, General Electric aimed to address heart disease through its hand-held electrocardiogram (ECG) device. Created in its Bangalore health-care laboratory, the Mac 400 – with only four buttons – is compact enough to fit inside a backpack, and at under $800 dollars (instead of $2,000) can administer ECG tests at one dollar per patient. These devices rely on what is called reverse, frugal, or constraint-based innovation to provide solutions to the two million Indians who die from drinking contaminated water as well as the five million that die of cardiovascular diseases annually.

Source: *The Economist*, 2010.

21. The poor can be a profitable market, especially if multinational companies change their business models. It is important to note, however, that the poor are not a market that allows for the traditional pursuit of high margins (Prahaland and Hart, 2002). On the contrary, profits are driven by volume and capital efficiency. Margins are likely to be low by current norms but unit sales can be extremely high (Prahaland and Hart, 2002). Therefore, firms should incorporate the characteristics of bottom-of-the-pyramid markets when defining their margins structures to capture the benefits produced by developing their innovations.

22. It is relevant to acknowledge a paradox related to the size of the companies and inclusive innovation. Small firms are usually driven by persistent social entrepreneurs and thus have the motivation to create and implement ideas for inclusive innovation. However, these ventures usually lack the resources to implement and scale up the initiatives. In contrast, large multinationals possess the resources but frequently lack the motivation to do so (George et al., 2012:678).

23. Firms need to adapt their strategies in order to participate in low-income markets. In this regard, market creation issues are especially relevant. Here, formal institutions such as courts, stock markets and labour laws interplay with informal ones, such as cultural and social norms, in shaping and sustaining markets (George et al., 2012). As the private sector engages in low-income markets, different types of social organizations interact to create markets, develop appropriate products and services, and deliver value. To achieve business model innovation suitable to serve low-income and excluded people, organizations first must increase their understanding of their markets. Next, firms must identify the economic factors that hinder operations in these markets, including the regulatory and policy environment, and respond by identifying specific strategies to overcome these obstacles (World Economic Forum, 2009).

24. It is important to recognize, however, that firms alone cannot develop markets for bottom-of-the-pyramid consumers. The intervention of multiple players, including local governmental authorities, NGOs, communities and financial institutions, is also necessary. Further, inclusiveness should be considered and incorporated in the design and implementation of STI policies.

III. Factors to be considered in the preparation of inclusive innovation policies

25. This section discusses three factors that may influence the potential effectiveness of inclusive innovation policies and for that reason, should be given careful consideration when designing and implementing inclusive innovation policies: the characteristics of low-income markets, instrument design and the importance of inter-organizational collaboration.

Characteristics of low-income markets

26. In addition to the market failures inherent to any innovation process, such as information and uncertainty of the outcomes of the innovation, there are additional characteristics of the bottom-of-the-pyramid market that result in the large under-production of goods and services based on inclusive innovations. In terms of the design of STI policies for inclusive development, empirical work in this area has identified four factors that need to be effective to facilitate the sustainability of inclusive innovation: factors related to the product, its retailing and support, the microenterprises that provide the demand-side services and the wider context (Foster and Heeks, 2013a). Careful consideration should be given to enabling the survival of the main intermediaries responsible for sales and support, and to facilitating the diffusion and sustainability of low-income markets.

Design of policy instruments

27. Other issues that enter into play when designing inclusive innovation policies are the characteristics of the innovation required, the players involved and their interactions, the type of learning that these undertake and the institutional setting in which they operate (Foster and Heeks, 2013a). The design and implementation of effective inclusive innovation policies require an understanding of the particular failures of the innovation system that have a bearing on the attainment of inclusive goals.

28. The government can also encourage public-funded research and R&D organizations to do more to meet the needs of the poor, for instance bestowing competitive research grants, prizes and public awards on research teams that produce relevant innovations (Utz and Dahlman, 2007). A possible mechanism for orienting STI policy to cover the problems

of the poor is that of aligning public R&D efforts to sectors and areas that allow people-oriented development and delivery. Competitive public sector procurement for the production of specific goods and services for the poor can also contribute to inclusive innovation (Utz and Dahlman, 2007).

29. To increase the relevance and adoption of technology, policy needs to support local innovations at both the level of invention and of transfer of existing technologies that may satisfy the needs of poor communities (UNCTAD, 2011). This reflects the importance of diffusion and outreach in inclusive innovation. Although an innovation can work in low-income markets, diffusion and outreach are key stages in achieving social benefits (Foster and Heeks, 2013b). Mechanisms to scale up, demonstrate and disseminate these innovations to the informal sector can also contribute to make inclusive innovation available (see box 3). It is important to consider that the technology transfer and dissemination mechanisms will need to be adapted to reflect the characteristics of specific pro-poor innovations.

Box 3. The importance of diffusing pro-poor innovations: The case of agricultural innovation systems

Seventy-six per cent of the developing world's poor live in rural areas (World Bank and International Monetary Fund, 2013). This means that inclusive innovation policies are particularly relevant to improving the livelihoods of the rural poor.

Two mechanisms can help enhance the diffusion of inclusive innovations in the agricultural sector: the promotion of networks of extension services and the support of rural entrepreneurs (UNCTAD, 2011). As noted by UNCTAD (2010), it is necessary to further strengthen horizontal linkages, such as the promotion of extension services, in order to deal with the non-technological constraints of agricultural production and innovation. The extension strategy related to inclusive innovation should consider the characteristics of the innovation, its beneficiaries and the need to ensure reaching the poor farmer. A strategy that can address possible exclusion in the provision of extension and advisory services is data segregation of the participation of different categories of farmers in the programmes (subsistence, emerging and small-scale commercial) and ensuring that all groups of farmers are being served according to their characteristics.

Another mechanism that can improve extension services for the rural poor is the promotion of rural producer organizations in northern Cameroon. Empirical evidence collected by Swanson and Rajalahti (2010) identifies the promotion of rural producer organizations focused on the rural poor as a critical policy to improve extension services to help these farmers.[5] The study showed a growing discrepancy in the provision of extension services oriented to small farmers versus large commodity-based producer organizations. Therefore, rural producer organizations aimed at meeting the extension needs of small farmers can help give them a say in issues that affect their livelihoods (Swanson and Rajalahti, 2010). In addition, the more generalized use of information and communications technologies can also be an effective mechanism (UNCTAD, 2011).

[5] Rural producer organizations are key stakeholders in rural development. They offer both the public and private sectors important opportunities such as providing research and extension services to farmers and organizing the purchase of inputs and the commercialization of products on a more cost-effective basis, mobilizing resources for local development and representing the interests and collective voice of farmers in development forums (Wennink and Heemskerk, 2007).

30. Fostering participation in international R&D global networks and private sector participation are mechanisms that may help develop innovation targeting the needs of the poor. For instance, in the case of India, the World Bank recommended incentives for pro-poor early-stage technology development and commercialization by the formal sector. To achieve these, the World Bank suggested the provision of preferential matching grants to public R&D institutes, industry, universities, NGOs and global poverty-alleviation networks (Utz and Dahlman, 2007:4).

31. Another example of a policy instrument oriented towards meeting the needs of poor consumers is the proposal to create the India Inclusive Innovation Fund. This venture capital fund is currently in the process of design and development (India Inclusive Innovation Fund, 2014). It is a step forward in addressing the needs of companies interested in serving low-income markets. It will be oriented to finance such companies with the capital they need to take their ideas to market. Fund-backed enterprises will target core sectors such as education, health care and agriculture, and combine social and commercial returns. The outcome of the Fund's work will be a generation of innovative solutions, directing India's most creative thinking towards solving its most significant challenges.[6]

32. Experiences in inclusive innovation show that creating new services around a product can be a successful alternative to the provision of subsidies (Bound and Thornton, 2012). This is illustrated by the experience of SELCO, which provides solar panels to rural communities in India. This company is making solar power a feasible option for rural people and is a good example of how to create a new service ecosystem around a product. In this case, the conventional policy response to increase access to solar power in rural communities has been to consider it a product, with banks subsidized by the governments to give loans to consumers to buy solar panels. However, this approach was not realistic, considering the budget constraints of rural people in India. In response, SELCO innovated by treating solar power as a service rather than a product. Instead of relying on subsidies, they established a pay-per-use model, whereby entrepreneurs bought the technology and charged customers a small proportion of their daily cash flow to use it –distributing the solar lights every evening and collecting them the next morning. By acting as a guarantor for the creditworthiness of the middleman and reducing the administrative costs for SELCO of dealing with many customers instead of a reduced numbers of entrepreneurs, the model deployed by this company allows the full costs of solar power to be covered over time. In 2012, SELCO brought lighting to 120,000 households in Karnataka, India (Bound and Thornton, 2012).

33. A different aspect of the importance of the design of public policy for inclusive innovation can be observed in the analysis of the Brazilian tourism industry by Hall et al. (2012). The study argues that weak institutions, coupled with negative entrepreneurship, may foster destructive outcomes. This is based on their analysis of tourism in the region of Recife. During the 1980s, this area was identified as a potential tourist region, and it was expected that the promotion of tourism would increase entrepreneurship, including low-income entrepreneurship. However, policymakers failed to understand the implications of the high prevalence of social problems related to illegal activities in the area. Although the public campaign did boost tourism in the region, it was concentrated in undesirable forms of tourism. Currently, public policies concentrate on shifting the attractiveness of the destination towards culture and ecology. Policies acknowledging both economic and social perspectives may foster more productive

[6] See http://www.iii.gov.in/images/stories/reportpeople/Financing_Innovation_ch1.pdf (accessed 11 February 2014).

entrepreneurial outcomes, but at a more constrained economic pace. When social factors are not considered, policies can trigger social exclusion or destructive entrepreneurship.

34. When designing inclusive innovation policy programmes, it is also relevant to consider some of the permanent challenges faced by this type of innovations. There are three main challenges that need to be considered. First, it is necessary to attend to the local specificities of the bottom-of-the-pyramid markets while simultaneously seeking wide-scale diffusion and influence. Second, innovations that are supported must be appropriate to the existing situations that one ultimately seeks to transform. Third, the focus must be kept on inclusive innovation goals. This means working with project-based solutions to social goals that fundamentally require structural change (Smith et al., 2014:6).

Importance of collaboration

35. It is also necessary to consider the importance of collaboration and the participatory engagement of poor communities and other non-traditional stakeholders such as grassroots NGOs when studying low-income markets (Arora and Romijn, 2009:30). In India, for instance, there is a strong tradition of non-profit organizations and a socially conscious private sector that are willing to fill access gaps with radical new approaches (Bound and Thornton, 2012:21). The existence of inter-organizations is, in general, a characteristic found in pro-poor innovations initiatives. Among other benefits of collaboration, its allows to concentrate the use of organizations' complementary assets in the division of labour (Powell and Grodal, 2006). Largely, non-profit organizations have first-hand knowledge of the problems and needs of the bottom-of-the-pyramid consumers. Government and national agencies usually provide institutional support and other capacities in the deployment of inclusive innovation policies, and firms play major roles in the development of technological solutions.

36. Further, it is also important to involve the beneficiaries, in this case, people living in poverty and other groups at risk of social exclusion in the design of the innovations (World Bank, 2013). People who are part of low-income markets are the most apt to identify their needs. Indeed, the needs of disadvantage people are broader than the few needs listed and monitored as part of the Millennium Development Goals and the needs particular to the environmental and social context of low-income consumers (Utz and Dahlman, 2007).

IV. Institutions, regulations and inclusive innovation

37. Governments have an important role to play in fostering an enabling institutional environment for inclusive innovation. Institutions include social norms of behaviour, habits, routines, values and aspirations, as well as laws and regulations that are rooted in a given society's history and culture (World Bank, 2010:336). Institutions and their interactions with the other components of the innovation processes are central to the national system of innovation. This is even more relevant in the promotion of pro-poor innovation because innovation requires cooperation – and this is rooted in institutions that help build trust (World Bank, 2010). Institutions play a key role in inclusive innovation processes: they determine the extent to which the poor can participate in the innovation process and participate in potential benefits (World Bank, 2010).

38. A major implication of this is that strategies to foster pro-poor innovations and policies need to fit the particular conditions of different social settings (World Bank, 2010:336), and the institutional framework may require changes in order for pro-poor innovations to take off. For example, laws and regulations governing intellectual property rights may have an anti-poor bias. Further, it may be difficult to secure poor people's access to assets such as land or credit, social norms may prevent women from assuming certain

roles required for innovation, social stratification may block the formation of the social networks required for innovations and the manipulation of product markets may destroy the economic incentive to innovate (World Bank, 2010:336).

39. Empirical work on the implementation and diffusion of innovations for the bottom-of-the-pyramid market in the mobile sector in Kenya found that inclusive innovation has built upon a reinforcing circle of adaptive innovation, dynamic competition and the presence of innovation intermediaries with poor communities (Foster and Heeks, 2013b). Also relevant for the diffusion of this innovation was the establishment of regulation that enabled the creation of markets and of policy initiatives that supported these brokers of inclusive innovations in several ways. By simultaneously setting the conditions for market entry and regulating some aspects of mobile technologies, policy has ensured the participation of more market players and stronger competition among them (Foster and Heeks, 2013b) (see box 4).

Box 4. Importance of regulation in the implementation of mobile technologies for low-market markets in Kenya

The introduction of mobile technologies to bottom-of-the-pyramid consumers in Kenya began around 2005, first driven by donor agencies and international organizations in collaboration with the Government, and then as part of the corporate social responsibility of firms, for instance, supporting shared phone models in poor communities and developing universal service provisions.

The implementation stage of mobile technologies for low-income consumers was critical in ensuring the outreach of innovation. Foster and Heeks (2013b) found that poor enforcement of laws can jeopardize the implementation of inclusive innovations. In their study, several difficulties were found during the implementation of mobile handsets for the low-income market. For instance, the lack of enforcement of the quality regulations of mobile telephones allowed the entrance of many low-quality products that made some sellers incur losses and forced them to adapt in order to survive in the market. However, through the elimination of the grey-market mobile phones, additional reinforcement of quality requirements might have diminished the outreach and diffusion of this innovation in Kenya. Therefore, strong emphasis needs to be placed on the enforcement of regulations that allow the adaptation of intermediaries and players related to inclusive innovations.

Source: Foster and Heeks, 2013b.

V. Capacity-building through inclusive innovation and entrepreneurship

40. Other factors that should be considered when promoting inclusive innovation are the skills and competencies of the beneficiary populations. There are two main reasons for this. First, the improvement of their innovative and entrepreneurial skills empowers them to generate innovations relevant to their socioeconomic context; second, fostering the capabilities of the people at the bottom of the pyramid enables them to make the most of the innovations available through inclusive STI policies.

41. Poor people's innovative abilities are constrained by, among other things, a lack of skills, inadequate provision of public services and an inability to access markets and assets on fair terms and to handle associated risk. This combination of factors highlights the relevance of basic training for the informal sector as critical for enhancing their innovative skills (Utz and Dahlman, 2007). In the case of the introduction of mobile communications for women entrepreneurs in India presented in box 1, the project not only includes the

deployment of the new technologies but also considers broader business development and financial literacy training.

42. Inclusive innovation programmes must also develop mechanisms that will encourage the poor to co-create and co-innovate inclusive solutions. According to the World Bank (2013), the impact of inclusive innovation will be more sustainable in the long run if developing countries build the capacity to generate their own inclusive innovation solutions in partnership with national, regional and global STI organizations.

43. It is also relevant to consider the level of education of the entrepreneurs when studying capacity development policies for low-income markets. If the policies and initiatives are not adapted to the capacities of the poor and do not target existing skill gaps, such interventions may unintentionally increase social exclusion, eroding the social and political legitimacy of inclusive innovations policies (Hall et al., 2012).

44. The development of entrepreneurial competencies can help strengthen the capabilities of low-income people. This is especially useful when implementing inclusive innovation policies. Improving the understanding among low-income entrepreneurs about how a specific innovation can change the way they earn their livelihood not only enhances their entrepreneurial skills but also facilitates further diffusion of those innovations (Prahalad, 2012).

45. Low-income entrepreneurs in developing countries often require training in basic literary and financial business skills as well as training in the development of entrepreneurial behaviours, including seeking opportunities, persistence and developing self-confidence (UNCTAD, 2011). Start-up capital cannot overcome the lack of entrepreneurial skill capacities and education, and loans to less-skilled entrepreneurs often do not get repaid (Acs and Kallas, 2007). Capacity-building contributes to the efficiency and growth of their enterprises as well as to their personal development. Government policies on low-income entrepreneurship should ensure that this is not only embedded into the formal educational system but also offered through other mechanisms such as informal community, rural and apprentice training programmes. As in other aspects of innovation policies, it is also important that these programmes be integrated into a broader comprehensive approach considering incentives, policies, institutions and infrastructure, which are also critical to facilitate inclusive innovation (Utz and Dahlman, 2007).

VI. Conclusions

46. The concept of inclusive innovation is relatively new, and the traditional mechanisms to promote STI development should be adapted to the characteristics of the poor and of the excluded in order to increase the potential of these initiatives. Inclusive innovation does not necessarily consider highly technological innovation – it also considers low technology; business models, process efficiency and delivery models; and technologies with potential use in developed and developing nations, not only in low-income countries.

47. The aggregated purchasing power of low-income people represents an opportunity for firms to participate in this market segment. However, to serve the poor, firms need to understand the socioeconomic conditions in which low-income people live and work. Thus firms may design products and services that are affordable, accessible and available to this market. Firms also need to acknowledge that profits in this market are driven by volume rather than margin. Therefore, they need to define alternative strategies to harness the benefits of investing in innovation. Although there are potential benefits for firms in innovating to address the needs of low-income populations, firms on their own cannot create the conditions for successful economic activity around such innovations. To meet the demands of low-income people, firms need to work collaboratively with other players in

the innovation system, such as government authorities, NGOs, communities and financial institutions.

48. At the same time, the development of inclusive innovations must overcome not only the market failures inherent to any innovation process, but also the additional characteristics of low-income markets that result in an underproduction of good and services. Therefore, the design of adequate inclusive innovation policies and the strengthening of the institutions and regulations involved in the innovative process are key to the success of these initiatives.

49. Additionally, to ensure that the innovations meet the needs of the poor, special attention should be paid to the information flows between the producers and users of the innovations. In this sense, the involvement of the beneficiaries of inclusive innovation policies and their collaboration with other agents involved in the implementation of these policies play an important role filling the information gaps that exist in relation to low-income markets. The potential success of the initiatives, especially with regard to the diffusion and outreach of the innovations, is highly dependent on the effective collaboration among the players of the low-income innovation system. Sustainable adoption and outreach remains a constant challenge for the wide adoption and commercialization of inclusive innovations.

50. Capacity-building also plays a significant role in the promotion of inclusive innovation. Investment in capacity-building can strengthen the innovative and entrepreneurial skills of people living in poverty. These skills help motivate the poor to participate in the creation of inclusive innovations. Additionally, the development of entrepreneurial competencies in low-income groups can develop further their understanding of inclusive innovations, which is crucial to their diffusion, and ultimately to the achievement of the social inclusiveness goals of these policies.

51. This note has described the concept of inclusive innovation and has discussed a number of linkages and features that need to be considered to make innovation systems more supportive of inclusive innovation. In this sense, knowledge flows and collaboration between the participants, as well as those elements of the innovation system that support its diffusion function, are critical if the potential of inclusive innovation policies is to be achieved. In its policy dialogue, the Investment, Enterprise and Development Commission may wish to identify aspects that need to be further considered in the discussion of national innovation policies in this area. To facilitate this dialogue, the following questions are suggested:

(a) What specific pro-poor innovation policies have been successfully implemented, and what lessons can be drawn from these experiences that can be replicated in other developing countries?

(b) What are the main governance challenges faced by innovation systems in terms of designing and implementing inclusive innovation policies?

(c) Pro-poor innovation has mostly evolved in countries with large low-income populations because of the aggregated purchasing power of the poor in these countries, among other reasons. How could these innovations be implemented in small economies with high rates of poverty but low aggregated demand? What types of incentive would have to be created to ensure the engagement of private sector players in inclusive innovation initiatives in these countries?

References

Acs ZJ and Kallas K (2007). State of literature on small to medium-size enterprises and entrepreneurship in low-income communities. Papers on Entrepreneurship, Growth and Public Policy No. 2007-03. Max Planck Institute of Economics. Entrepreneurship, Growth and Public Policy Group.

Agarwal N and Brem A (2012). Frugal and reverse innovation – Literature overview and case study insights from a German MNC in India and China. 18th International Conference on Engineering, Technology and Innovation. 18–20 June, Munich, Germany.

Arora S and Romijn H (2009). Working Paper Series No. 036. United Nations University UNU-MERIT. The Netherlands.

Aubert JE (2005). Promoting innovation in developing countries: A conceptual framework. Policy Research Working Papers. World Bank.

Berdegué JA (2005). Pro-poor innovation systems: Background paper. International Fund for Agricultural Development.

Bhatti YA and Ventresca M (2012). The emerging market for frugal innovation: Fad, fashion, or fit? SSRN Scholarly Paper No. 2005983. Social Science Research Network. Rochester, New York.

Bound K and Thornton I (2012). *Our Frugal Future: Lessons from India's innovation System*. Nesta. London.

Cherie Blair (2011). Cherie Blair Foundation partners with Vodafone Foundation in India and SEWA. Available at http://cherieblair.org/features-videos/2012/12/-vodafone-05-12-12-from-arjun.html (accessed 11 February 2014).

Cherie Blair Foundation for Women (2012). Supply chain management solutions in India. Available at http://www.cherieblairfoundation.org/supply-chain-management-solutions-in-india/ (accessed 11 September 2013).

Department of Economic and Social Affairs (2012). *Realizing the Future We Want for All: Report to the Secretary-General*. United Nations System Task Team on the Post-2015 Development Agenda. New York.

Foster C and Heeks R (2013a). Conceptualizing inclusive innovation: Modifying systems of innovation frameworks to understand diffusion of new technology to low-income consumers. *European Journal of Development Research*. 25(3):333–355.

Foster C and Heeks R (2013b). Analysing policy for inclusive innovation: The mobile sector and base-of-the-pyramid markets in Kenya. *Innovation and Development*. 3(1):103–119.

George G, McGahan AM and Prabhu J (2012). Innovation for inclusive growth: towards a theoretical framework and a research agenda. *Journal of Management Studies*. 49(4):661–683.

Gupta AK (2007). Towards an inclusive innovation model for sustainable development. Paper presented at the Global Business Policy Council of A.T. Kearney – CEO's Retreat, Dubai, 9–11 December.

Hall J, Matos S, Sheehan L and Silvestre B (2012). Entrepreneurship and innovation at the base of the pyramid: A recipe for inclusive growth or social exclusion? *Journal of Management Studies*. 49(4):785–812.

Immelt JR, Govindarajan V and Trimble C (2009). How GE is disrupting itself. *Harvard Business Review*. The Magazine. Available at http://hbr.org/2009/10/how-ge-is-disrupting-itself/ (accessed 11 February 2014).

Kaplinsky R (2011). Schumacher meets Schumpeter: Appropriate technology below the radar. Research Policy. 40(2):193–203.

Mohnen P and Stare M (2013). The notion of inclusive innovation. No. 15. In: *Collection of i4g Policy Briefs 2013 – High Level Economic Expert Group 'Innovation for Growth – i4g'*. European Commission. Luxembourg.

National Innovation Council. Government of India (2014). India Inclusive Innovation Fund. Available at http://www.innovationcouncil.gov.in/index.php?option=com_content&view=article&id=52&Itemid=34# (accessed 16 January 2014).

Powell WW and Grodal S (2006). Networks of innovators. In: Fagerberg J, Mowery DC, and Nelson RR, eds. *The Oxford Handbook of Innovation*. Oxford Handbooks Online.

Prahalad CK (2006). *The Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profits*. Wharton School Publishing. University of Pennsylvania. Philadelphia, Pennsylvania.

Prahalad CK (2012). Bottom of the pyramid as a source of breakthrough innovations. *Journal of Product Innovation Management*. 29(1):6–12.

Prahaland CK and Hart SL (2002). The fortune at the bottom of the pyramid. *strategy + business*. (26):2–14.

Smith A, Fressoli M and Thomas H (2014). Grassroots innovation movements: Challenges and contributions. *Journal of Cleaner Production*. 63:114–124.

Swanson BE and Rajalahti R (2010). Strengthening agricultural extension and advisory systems: Procedures for assessing, transforming, and evaluating extension systems. Agriculture and Rural Development. Discussion Paper No. 44. The World Bank. Washington, D.C.

The Economist (2010). First break all the rules: The charms of frugal innovation. 15 April.

UNCTAD (2010). *Technology and Innovation Report 2010: Enhancing Food Security in Africa through Science, Technology and Innovation*. United Nations publication. UNCTAD/TIR/2009. ISSN 2076-2917UNCTAD. New York and Geneva.

UNCTAD (2011). Pro-poor technology, innovation and entrepreneurship policies. TD/B/C.II/MEM.1/12. Geneva. 8 November.

UNCTAD (2014). STI and innovation policies for women in South Asia. Current studies in science technology and innovation. (Forthcoming.)

Utz A and Dahlman C (2007). Promoting inclusive innovation. In: Dutz MA, ed. *Unleashing India's Innovation: Toward Sustainable and Inclusive Growth*. World Bank. Washington, D.C.

Vodafone Foundation (2012). India and Cherie Blair Foundation – Women's RUDI network (video). Available at http://mobileforgoodvideoplayer.vodafonefoundation.org/videos/watch/india-cherie-blair-foundation-sewa-app.

Wennink B and Heemskerk W (2007). *Access of the Poor to Agricultural Services: The Role of Farmer Organizations in Social Inclusion*. Bulletin No. 376. The Royal Tropical Institute. KIT Publishers. Amsterdam, The Netherlands.

World Bank (2010). Stimulating pro-poor innovations. In: *Innovation Policy: a Guide for Developing Countries*. No. 54893. International Bank for Reconstruction and Development/World Bank. Washington, D.C.

World Bank (2013). China: Inclusive innovation for sustainable inclusive growth. Document of the World Bank No. 82519. TA-P128575-TAS-BB. Washington, D.C. October.

World Bank and International Monetary Fund (2013). *Global Monitoring Report 2013: Rural–Urban Dynamics and the Millennium Development Goals*. World Bank. Washington, D.C.

World Economic Forum (2009). *The Next Billions: Unleashing Business Potential in Untapped Markets*. Cologny/Geneva, Switzerland.

Zeschky M, Widenmayer B and Gassmann O (2011). Frugal innovation in emerging markets. *Research Technology Management*. 54(4):38–45.